

**REMARKS**

In the Office Action mailed October 18, 2007, the Examiner rejected claims 42-44, 47, and 55 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,012,342 to Blight et al. ("Blight"); rejected claims 45, 46, 48, 49, 51, 53, and 54 under 35 U.S.C. § 103(a) as being unpatentable over Blight; and rejected claims 50 and 52 under 35 U.S.C. § 103(a) as being unpatentable over Blight in view of U.S. Patent No. 5,445,613 to Orth ("Orth").

By this Reply, Applicants have amended claims 42 and 46 and have canceled claim 45. Claims 42-44 and 46-83 are currently pending in this Application. Applicants submit that claim 42 has been amended to incorporate the subject matter of canceled claim 45. No new matter has been added by this Reply.

Applicants respectfully traverse the Examiner's rejection of claims 42-44, 47, and 55 under 35 U.S.C. § 102(b) as being anticipated by Blight. Blight does not disclose each and every element of amended claim 42, for example. The Examiner contends that "Blight discloses a plunger assembly and testing method for occluding a flexible tube in an extracorporeal blood treatment system (see column 1, lines 14-23)." (Office Action at 2.) The Examiner further contends that the apparatus disclosed in Blight "comprises a flexible tube 12, flow cut off member or plunger 10, movable portion or plunger tip 34 that can be actuated between open and closed, and a sensor assembly 52 for translating the displacement of the plunger to a measurement of force against tube 12 (see column 6, lines 52-65)." (Id.) Blight does not, however, disclose "associating at least one dynamic parameter with a motion of said movable portion" wherein the at least one dynamic parameter relates to at least one of "a time interval  $\Delta T$  taken by the movable portion to move between a first predetermined position and a

second predetermined position, at a distance from said first predetermined position . . . a speed of said movable portion at a first predetermined position . . . [or] an acceleration of said movable part at a first predetermined position,” as recited in amended claim 42. Therefore, Blight does not disclose each and every element of amended claim 42, and thus, amended claim 42 is not anticipated by Blight and is allowable over this reference. Accordingly, claims 43, 44, 47, and 55 are allowable at least due to their dependence from allowable amended claim 42 and due to their additional recitations of novel subject matter.

Applicants respectfully traverse the Examiner's rejection of claims 45, 46, 48, 49, 51, 53, and 54 under 35 U.S.C. § 103(a) as being unpatentable over Blight. Applicants respectfully submit that the Examiner has failed to establish a prima facie case of obviousness because the Examiner has not shown that Blight (1) teaches all the present claim limitations; or (2) provides a suggestion or motivation for one of ordinary skill in the art to modify its teachings to make the claimed invention. See M.P.E.P. § 2143. Amended claim 42, from which claims 46, 48, 49, 51, 53, and 54 depend, requires a method including “associating at least one dynamic parameter with a motion of said movable portion” wherein the at least one dynamic parameter relates to at least one of “a time interval  $dT$  taken by the movable portion to move between a first predetermined position and a second predetermined position, at a distance from said first predetermined position . . . a speed of said movable portion at a first predetermined position . . . [or] an acceleration of said movable part at a first predetermined position.” As discussed above, Blight fails to disclose this claim element. The Examiner contends that “Blight discloses that the Hall effect sensor senses a change in the magnetic field

over time, indicating that the method comprises a step of measuring time or speed in order to determine the position of the plunger, reasonably suggesting the claimed method to one of ordinary skill in the art.” Applicants disagree.

Applicants concede that Blight discloses the use of a Hall effect sensor, however, Applicants point out that Blight merely discloses using a Hall sensor to determine a relative position of a magnet within the disclosed apparatus. Blight does not disclose or suggest using a Hall sensor to measure speed or to use a timer to measure how long it takes for the movable portion of the cut-off member to move from a first position to a second position, as required by amended claim 42. Moreover, column 7, lines 29-44 of Blight discusses how the movement of a plunger sleeve 18 relative to a plunger tip 34 relates to a change in the magnetic field as sensed by a Hall effect sensor. In particular, Blight discloses that “the change in the magnetic field represents the change in the plunger tip’s 34 position relative to the plunger sleeve 18.” (Col. 7, lines 36-38.) Blight further discloses that in one embodiment of the invention, “the sensor means comprises a magnet and means for determining the relative position of the magnet. The magnet is mounted to the extending portion of the compression means and the determining means is mounted to the plunger sleeve member. Preferably, the determining means comprises a Hall effect sensor.” (Col 3, lines 17-23.) Accordingly, Blight does not disclose a method for determining time or the speed or acceleration of a movable portion of the cut-off member, as required by amended claim 42. Nor does Blight disclose or suggest using parameters relating to time, speed, or acceleration to monitor the operability of a member for cutting off the flow of a fluid through an extracorporeal circuit, as recited in amended claim 42. Therefore, amended claim 42 is

allowable over Blight. Thus, claims 46, 48, 49, 51, 53, and 54 are allowable at least due to their dependence from allowable amended claim 42 and due to their additional recitations of novel subject matter.

Applicants respectfully traverse the Examiner's rejection of claims 50 and 52 under 35 U.S.C. § 103(a) as being unpatentable over Blight in view of Orth. Applicants respectfully submit that the Examiner has failed to establish a prima facie case of obviousness because the Examiner has not shown that Blight and Orth whether alone or in combination, either (1) teach all the present claim limitations; or (2) provide one of ordinary skill with a reasonable expectation of success in so combining and/or modifying their teachings. See M.P.E.P. § 2143. Amended claim 42, from which claims 50 and 52 depend, requires a method including "associating at least one dynamic parameter with a motion of said movable portion" wherein the at least one dynamic parameter relates to at least one of "a time interval  $dT$  taken by the movable portion to move between a first predetermined position and a second predetermined position, at a distance from said first predetermined position . . . a speed of said movable portion at a first predetermined position . . . [or] an acceleration of said movable part at a first predetermined position." As discussed above, Blight fails to disclose this claim element. The Examiner contends that "Orth discloses a tube occlusion mechanism for use in an extracorporeal circuit wherein an alarm is sounded if the tube fails to occlude (see column 5, lines 37-56)." Orth does not, however, disclose or suggest "associating at least one dynamic parameter with a motion of said movable portion" wherein the at least one dynamic parameter relates to at least one of "a time interval  $dT$  taken by the movable portion to move between a first predetermined position and a second

predetermined position, at a distance from said first predetermined position . . . a speed of said movable portion at a first predetermined position . . . [or] an acceleration of said movable part at a first predetermined position," as recited in amended claim 42. Nor does the Examiner rely on Orth for such teaching. Orth, therefore, fails to cure the above-identified deficiencies of Blight. Therefore, claim 1 is allowable over Blight in view of Orth. Thus, claims 50 and 52 are allowable at least due to their dependence from allowable amended claim 42 and due to their additional recitations of novel subject matter.

In view of the foregoing amendments and remarks, Applicant respectfully requests reconsideration and reexamination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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